

CLAIMS

What is claimed is:

1. A smart card comprising:
 - an optical transceiver for transmitting a first optical signal and receiving a second optical signal; and
 - an electronic processor in communication with the optical transceiver for processing the first and second optical signals.
2. The smart card according to claim 1, further comprising an antenna coupled to the electronic processor.
3. The smart card according to claim 2, wherein the antenna is coupled to a power converter; and
 - wherein the power converter provides a voltage to the electronic processor and the optical transceiver.
4. The smart card according to claim 3, wherein the voltage ranges from about 3 volts to 6 volts.
5. The smart card according to claim 1, wherein the electronic processor further comprises a:
 - CPU;
 - a memory circuit; and
 - an input/output controller.

6. The smart card according to claim 5, wherein the memory circuit is selected from the group consisting of a ROM, NVM and RAM.

7. The smart card according to claim 2 wherein the optical smart card initiates a transmission upon receiving an electromagnetic signal by way of the antenna.

8. A smart card reader, comprising:
an optical transceiver for receiving a first signal from an optical smart card and transmitting a second signal to the optical smart card; and
an electronic logic circuit for processing the first and second signals.

9. The smart card reader according to claim 8, further comprising an oscillator for generating a third signal at a first frequency, wherein the oscillator is coupled to a source of electrical power.

10. The smart card reader according to claim 9, wherein the source of electrical power is a direct current source.

11. The smart card reader according to claim 9, wherein the source of electrical power is an alternating current source.

12. The smart card reader according to claim 9, further comprising an amplifier in communication with the oscillator.

13. The smart card reader of claim 9, further comprising an antenna for transmitting the third signal, wherein the antenna is in communication with one of the oscillator and the amplifier.

14. An optical smart card system, comprising:

an optical smart card including a first optical transceiver in communication with an electronic processor; and

an optical smart card reader for communicating information between the optical smart card and the optical smart card reader;

wherein the optical smart card reader includes a second optical transceiver in communication with a logic circuit.

15. The optical smart card system according to claim 14, wherein the optical smart card further comprises a first antenna coupled to the electronic processor.

16. The optical smart card system according to claim 15, further comprising an external power supply for transmitting electromagnetic signals to the optical smart card for energizing the optical smart card.

17. The optical smart card system according to claim 14, wherein the optical smart card reader further comprises a second antenna.

18. The optical smart card system according to claim 17, wherein the optical smart card reader transmits an electromagnetic signal to the optical smart card for energizing the optical smart card and initiating an optical communication transaction.

19. A method of transacting information in an optical smart card system including an optical smart card reader and an optical smart card, comprising:

transmitting an electromagnetic signal to the optical smart card; and

initiating communication between the optical smart card and the optical smart card reader upon the optical smart card receiving the electromagnetic signal.

20. The method according to claim 19, further comprising transmitting an electromagnetic signal from the optical smart card reader.

21. The method according to claim 19, further comprising transmitting an electromagnetic signal from an external power supply other than an optical smart card reader power supply.